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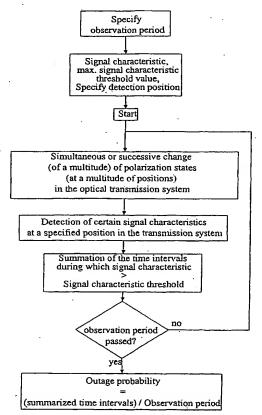
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(71) Applicants (for all designated States except US): DEUTSCHE TELEKOM AG [DE/DE]; Friedrich-Ebert-Allee 140, 53113 Bonn (DE). NIPPON TELEGRAPH & TELEPHONE CORPORATION [JP/JP]; 3-1, Otemachi, 2-chome, Chiyoda-ku, Tokyo 100-8116 (JP).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): WEIERSHAUSEN, Werner [DE/DE]; bei Andrea Burkart, Nieder-Röder-Str. 48 c, 64859 Eppertshausen (DE). MATTHEUS, Arnold [DE/DE]; Schepp Allee 49, 64295 Darmstadt (DE). LEPPLA, Ralph [DE/DE]; Martinstr. 76, 64285 Darmstadt (DE). MIYAMOTO, Yutaka [JP/JP]; c/o NTT Intellectual Property, Center, 9-11, Midori-cho 3-Chome, Musashino-shi, Tokyo 180-8585 (JP). HIRANO, Akira [JP/JP]; c/o NTT Intellectual Property Center, 9-11, Midori-cho 3-Chome, Musashino-shi, Tokyo 180-8585 (JP). KISAKA, Yoshiaki [JP/JP]; c/o NTT Intellectual Property Center, 9-11, Midori-cho 3-Chome, Musashino-shi, Tokyo 180-8585 (JP).
- (74) Agent: KAMPFENKEL, Klaus; Blumbach, Kramer & Partner GbR, Alexandrastrasse 5, 65187 Wiesbaden (DE).
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(54) Title: PROCESSES AND DEVICES FOR THE DETERMINATION OF A PMD-INDUCED OUTAGE PROBABILITY OF AN OPTICAL TRANSMISSION SYSTEM



(57) Abstract: The invention relates in particular to a process for the determination of the PMD-induced outage probability of an optical transmission system. For this purpose the invention proposes a process whereby during a specified/specifiable observation period (Ttotal), the polarization states of the optical transmission system and/or the optical signals transmitted by the optical. transmission system are changed by applying a targeted intervention in at least one position of the transmission line (10, 11, 12, 13a, 13b, 14, 15, 20), and at a second position which is interposed at least one place downstream from the first position of the optical transmission line (10, 11, 12, 13a, 13b, 14, 15, 20), a specified/specifiable signal characteristic (BER) is qualitatively measured and checked for it adherence to a specified/specifiable threshold condition (BERth) and the PMD-induced outage probability of the optical transmission system is calculated on the basis of the ratio between the length of that share of the time (Tout), during which the measured signal characteristic fails to meet the threshold condition (BER<sub>th</sub>) to the length of the observation period  $(T_{total})$ .

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